

## **OBJECTIVE 29:      RELOCATION, RE-ENTRY, AND RETURN - IMPLEMENTATION**

### **OBJECTIVE**

Demonstrate the capability to implement relocation, re-entry, and return.

### **INTENT**

This objective is derived from NUREG-0654 which provides that OROs should demonstrate the capability to develop plans and procedures for re-entry and recovery. (See evaluation criteria from Planning Standards M. and N.)

This objective addresses functions and operations that take place during the post-emergency phase (intermediate phase) of an emergency. At the time that NUREG-0654 was published, **re-entry** and **recovery** were used as general terms encompassing what is now referred to as relocation, re-entry, return, and recovery. The revised terminology is used in Chapters 4 and 7 of the Environmental Protection Agency's (EPA) "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," EPA 520/1-75-001-A, dated January 1990, in defining protective action guides (PAG) and is also used here.

The capability to implement relocation, re-entry and return decisions is essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant. This objective focuses on implementation of decisions made in Objective 28, Relocation, Re-entry, and Return - Decision Making.

### **DEMONSTRATION CRITERIA**

#### NUREG

#### CRITERION

- |                |   |
|----------------|---|
| <b>M.1.,3.</b> | <b>1.    Decisions regarding relocation of populations are implemented.</b> |
|----------------|---|

#### **Explanation**

Responsible OROs should demonstrate the capability to implement decisions concerning relocation of individuals, not previously evacuated, from a restricted zone within the plume pathway to an area where radiological contamination will not expose the general public to doses that exceed the relocation PAGs.

The responsible OROs should demonstrate the capability to communicate with each other

regarding timing of actions, notification of the population of the procedures for relocation, and the notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs should also demonstrate the capability to communicate instructions to the public regarding relocation decisions.

### **Extent of Play**

Under this criterion, all implementation actions may be demonstrated through internal meetings, briefings, discussions, and by communications and coordination with other OROs and support agencies. This demonstration is more effectively accomplished in a group setting with representatives of all major organizations working together to review dose projection and relocation issues and develop implementation procedures.

### NUREG

### CRITERION

**M.1.,3.**

**2. Decisions regarding controlled re-entry of emergency workers and members of the public are implemented.**

### **Explanation**

The responsible OROs should demonstrate the capability to establish control points along access roads into the restricted zone. The control points should be either at or near the boundary of the restricted zone or at a convenient location outside the zone and will not necessarily be the same **access control points** established for the emergency phase of the accident. OROs should also demonstrate the capability to control re-entry and exit of individuals to protect them from excessive radiation exposure and for exit of vehicles and other equipment to avoid spreading contamination outside the restricted zone.

Examples of control procedure subjects are: the assignment of, or checking for, direct-reading and non-direct-reading dosimeters for emergency workers; questions regarding the individuals objectives and locations expected to be visited and associated time frames; maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including: monitoring of individuals, vehicles and equipment; decision criteria regarding decontamination; proper disposition of emergency worker dosimeters; and maintenance of emergency worker radiation exposure records.

## **Extent of Play**

Under this criterion, actions required for implementation of decisions should be demonstrated through discussions with emergency operations center (EOC) personnel. Primarily, activities demonstrated during an exercise would involve communications and coordination. Messages regarding procedures for control of access to and egress from the restricted zone should be transmitted from ORO decisions makers to the agencies and other OROs involved in implementation. It is not necessary to transmit the messages to the public. However, actual communications among OROs should take place in order to demonstrate coordination. Field activities related to re-entry need not be demonstrated.

### NUREG

### CRITERION

- |                |   |
|----------------|---|
| <b>M.1.,3.</b> | <b>3. Decisions regarding return of evacuated population are implemented.</b> |
|----------------|---|

## **Explanation**

Responsible OROs should demonstrate the capability to implement policies concerning return of individuals to areas that were evacuated during the emergency phase. Procedures for establishing and controlling the boundary where initial return will be permitted should be explained.

## **Extent of Play**

Under this criterion, all implementation actions may be demonstrated through internal meetings, briefings, discussions, and by communications and coordination with other OROs and support agencies. This demonstration is more effectively accomplished in a group setting with representatives of all major organizations working together to review dose projection and return issues and develop implementation procedures.

### NUREG

### CRITERION

- |                |  |
|----------------|--|
| <b>M.1.,3.</b> | <b>4. Decisions regarding relocation, re-entry, and return are coordinated with appropriate organizations.</b> |
|----------------|--|

## **Explanation**

Implementation of relocation, re-entry, and return may have a significant economic or

health impact on individuals affected. The areas of impact may include schools, work locations, public services (e.g., mail, local government, and law enforcement) and health care. The ORO responsible for implementing the protective actions should demonstrate coordination of these actions with other OROs to minimize these impacts. However, OROs are not expected to resolve long term recovery problems, such as low level contamination in occupied areas or recovery of the restricted zone, as part of the exercise.

### **Extent of Play**

Under this criterion, all implementation actions may be demonstrated through internal meetings, briefings, discussions, and by communications and coordination with other OROs and support agencies. This demonstration is more effectively accomplished in a group setting with representatives of all major organizations working together to review dose projection; relocation, re-entry, and return issues; and develop implementation procedures.

### NUREG

### CRITERION

#### **N.1.a.**

- 5. All activities described in the demonstration criteria for this objective are carried out in accordance with the plan, unless deviations are provided for in the extent-of-play agreement.**

### **Explanation**

Responsible OROs should demonstrate the capability to follow policy decisions, implement procedures, and utilize equipment and facilities contained in the plans. OROs should demonstrate that they can follow sequences outlined in the various procedures and perform specified activities, as necessary.

### **Extent of Play**

Under this criterion, all activities should be carried out as specified in the plan, unless deviation from the plan is provided for in the extent-of-play agreement.

## **CLARIFICATION OF TERMS**

The following definitions describe the limited meaning of terms in the context of the Exercise Evaluation Methodology and may vary from the full technical definition for all circumstances.

**Access control** refers to all activities accomplished for the purpose of controlling entry or re-entry into a restricted zone because of radiological contamination so as to minimize the radiation exposure of individuals. This function is needed to prevent the general public from entering the restricted zone and permitting only emergency workers with essential missions and limited members of the general public to enter the restricted zone.

**Emergency operations center** refers to a facility that is the primary base of emergency operations for an ORO in a radiological emergency.

**Emergency phase** refers to the initial phase of response actions, during which actions are taken in response to a threat of release or a release in progress. Short-term protective actions, such as sheltering and evacuation, may be taken during this phase, in order to mitigate the hazard from immediate exposure to a passing plume.

**Exposure rate** refers to the amount of gamma radiation that a individual would receive in one hour as measured in air (typically expressed in units of milliroentgens per hour or Roentgens per hour).

**Monitoring** refers to the measurement of radiation levels, usually with a portable survey instrument.

**Recovery** refers to the process of reducing radiation exposure rates and concentrations of radioactive material in the environment to acceptable levels for return by the general public for unconditional occupancy or use after the emergency phase of a radiation emergency.

**Re-entry** refers to temporary entry of individuals into a restricted zone under controlled conditions.

**Relocation** refers to a protective action, taken in the post-emergency phase, through which individuals not evacuated during the emergency phase are asked to vacate a contaminated area to avoid chronic radiation exposure from deposited radioactive material.

**Restricted zone** refers to an area of controlled access from which the population has been evacuated or relocated.

**Return** refers to reoccupation of areas cleared for unrestricted residence or use by previously evacuated populations.